DOCUMENT RESUME

ED 463 245 SP 040 521

AUTHOR Decker, Kelly A.; Ware, Herbert W.

TITLE Elementary Teacher Planning Time: Teacher Use; Parent

Perception.

PUB DATE 2001-04-00

NOTE 17p.; Paper presented at the Annual Meeting of the American

Educational Research Association (Seattle, WA, April 10-14,

2001).

PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS Elementary Education; Elementary School Teachers; Faculty

Development; Parent Attitudes; *Planning; Teacher Attitudes;

*Teacher Responsibility; *Time Management

ABSTRACT

This study investigated how elementary teachers used one particular form of planning time available to them. Interviews with and observations of 30 teachers from 6 suburban elementary schools examined their use of a 30-minute planning period. The interviews and observations produced 24 activities which were listed on a questionnaire and circulated to teachers and parents. The teachers and parents ranked the items based on their perceptions of frequency of engagement. These teacher and parent rankings were then correlated for the two groups and with the frequency and duration of teacher task performance observed during the planning time. The differences in the correlation of teacher and parent perceptions, when coupled with the variability in parent rankings, suggest that parents lacked understanding of planning time available to teachers and how it was actually used. Teachers used their time in discretionary and flexible ways. Very little of the time was devoted to tasks that would enhance instructional delivery. (Contains 17 references.) (SM)



Running head: ELEMENTARY TEACHER PLANNING TIME

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Kelly A. Decker

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION Office of Educational Research and Improvement EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

- □ This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Elementary Teacher Planning Time: Teacher Use; Parent Perception

Kelly A. Decker and Herbert W. Ware Graduate School of Education George Mason University

Paper presented at the Annual Meeting American Educational Research Association Seattle, Washington April 2001



Abstract

This study employed interviews and observations of 30 teachers from 6 elementary schools to examine use of a 30-minute planning period. The interviews and 120 observations produced 24 activities listed on a questionnaire circulated to teachers and parents who ranked the items based upon their perception of frequency of engagement. The rankings assigned by teachers and parents then were correlated for the two groups and with the <u>frequency</u> and <u>duration</u> of teacher task performance observed in this planning time.

Differences in the correlation of teacher and parent perceptions, when coupled with the variability in parent rankings, suggest a lack of parent understanding of use of this time. Very little of this time was devoted to tasks enhancing instructional delivery.



Elementary Teacher Planning Time: Teacher Use; Parent Perception

In this study, we sought to determine how elementary teachers use one particular form of the planning time available to them and to determine the congruence between the use of that time, teachers' perception of the use of that time, and parent perception of teachers' use of that time. We hypothesized that observed teacher use of the time would be (a) strongly related to teacher responses to a survey on their use of planning time and (b) weakly related to parent responses on the same survey regarding teacher use. We also hypothesized that the relationship between teacher perceptions and parent perceptions, as revealed by the survey, would be weak. This examination would provide us with insight regarding an important element of the teacher's work environment—planning time. We were specifically interested in how teachers use the thirty-or-so minute planning time available to many teachers in the United States during their contract day. Our premise was that knowledge of teacher use of this time, coupled with parent perception of that use, would clarify understanding of the time aspect of the teacher's work environment that may need modification for accomplishing school reform.

In recent years, increased attention has been given to the interactions between teachers and the environment in which they teach (Feldman, 1994; Liston & Zeichner, 1991; O'Loughlin, 1989; Tobin & McRobbie, 1996). This attention stems from the belief that working conditions for teachers and students' learning conditions are inextricably intertwined. Louis and Smith (1990) have noted that it is impossible to change learning conditions for students if we do not change the working conditions for teachers. Fullan and Miles (1992), Hannaway and Carnoy (1993), and Johansen (1992) have remarked on the importance of time in school reform. Sarason (1990) has suggested that most school reforms fail largely because of time. In his theoretical analysis of time and an elementary teacher's work, Hargreaves (1990) identified five interrelated dimensions of time: technical-rational time, micropolitical time, phenomenological time, physical time, and sociopolitical time. It is this latter category that is central to the administrative control of teachers' work and the implementation of curriculum. To Hargreaves, it is in this dimension that originate the pressures, expectations and controls concerning what teachers do and how much they do in a day. After analyzing teacher interviews, Hargreaves noted the importance to teachers of discretion and flexibility in the use of preparation time and its integration with the rest of their work outside the classroom. Campbell (1985) also created a classification of the different forms of time engaging teachers. Among those categories is preparation time--the brief scheduled time teachers have away from their classes to attend to important duties that arise during the day. Campbell distinguishes as personal time the time designated for individual reading, researching, planning, and attendance of courses.

If it is important to note the distinction in these types of time for an elementary teacher, it is also important to acknowledge what others have found about teachers' time: there are steadily increasing claims on teachers' time, claims attributable to societal changes and demands for educational reform (Bruno, 1997; Day, 1997; McLaughlin & Oberman, 1996; Nelson, 1995). Teachers find that time is a major constraint on what they are able and expected to achieve in their schools and classrooms. "No time, not enough time, and need for more time" are the gauntlets they throw before innovators



(Hargreaves, 1990). However, when teachers have opportunities to organize and control their work environments, their performance improves (Firestone & Rosenblum, 1988). It seems, then, that if the time component of teachers' work environments are better understood, we can better grasp the policy and resource requirements for school improvement.

There are multiple perceptions that impact our understanding of teachers' work environments. Those perceptions may originate with teachers, with researchers, or with the general public. If time is an important part of the teachers' work environment, and an important element of school reform, then how do teachers, researchers, and parents perceive teacher use of time? Further, is there agreement among those perceptions? Do the teacher perceptions of their use of planning time differ from their actual use of planning time? For example, if researchers depend upon surveys of teachers to determine how teachers use their time, it is important to know the degree to which teacher questionnaire responses relate to actual teacher practice. Further, there is the public perception of the teaching profession that impacts our understanding of teachers' work environments. Since nearly everyone has spent some time in the teaching-learning process, each of us has developed our impressions of the profession—impressions that may not be consistent with either the statistical or individual teacher descriptors of the profession (Adelman, 1998). To what extent are these perceptions, relative to teacher planning time, consistent with teacher perceptions and teacher practice? If they are incongruent, that incongruence will only contribute to the difficulties teachers face as they play their roles in school reform.

We do know that one of the principal methods for obtaining on-the-clock planning time for regular classroom teachers in the United States is by assigning students to specialist teachers (e.g., art, music, and physical education). This strategy yields an almost daily period without students for the regular classroom teacher to use for such routine chores as copying, making phone calls, and grading papers (Adelman, 1998). It is an analysis of this form of planning time--Campbell's "preparation time" and Hargreaves "sociopolitical time"--that was the focus of this study. We examined this through interviews with teachers, shadowing of teachers during this planning time, and analysis of teacher and parent responses to a survey of their perceptions of the use of this time. We sought to document what elementary teachers actually do in this planning time and how that fits with parental perception of planning time use.

Methodology

Subjects and Sampling

For this study, we randomly selected six elementary schools from the 133 elementary schools in a large mid-Atlantic suburban school district. A letter was sent to the principal of each school requesting permission for access to the school and for interviewing and observing five teachers from that site. We also asked permission to distribute a questionnaire to one parent from each teacher's classroom. Only one school picked in the initial random selection declined to participate. It was replaced with another randomly selected school. For each school, from the teachers at each grade level, grades one through five, we then randomly selected one teacher. This assured us there would be



thirty teachers--a teacher from each grade level at each school. From each of those thirty classrooms we then randomly selected a parent, giving us a total of thirty parents.

The thirty teachers in this sample ranged in age from 23 to 58 years, with a mean of 41. There were 27 females and three males. Fifteen of the teachers held master's degrees; 15, the bachelor's. Their experience ranged from two to 34 years, with a mean of 15. The number of students in each teacher's classroom ranged from 20 to 27, with a mean of 24 and a mode of 27.

Instruments

In this study, we used teacher interview protocols, a checklist for observing teachers, and a questionnaire used to survey teachers and parents.

In a pilot phase conducted before this study was initiated, we developed the teacher observation forms. Subsequently, we piloted the observation form by shadowing a sample of teachers during their planning time. From those observations, we were able to develop interview protocols, teacher observation checklists, and the questionnaires to be circulated to teachers and parents during the actual study.

The teacher interview guide focused on retrieving background information on the teacher's teaching experience, attitudes and feelings toward instructional planning time, and aspects of the time available for planning, how much time teachers used, and how they actually did the planning. The guide employed both open- and close-ended questions. In the course of the study, we interviewed teachers for 45 to 60 minutes, taking handwritten notes and tape recording the interviews.

The preliminary observation procedures led to the creation of twenty-three categories of teacher behavior that occurred during the thirty minute planning period. A twenty-fourth category--"Other"--was added to capture activity not included in the twenty-three. The twenty-four categories became the categories respondents were asked to rank using the questionnaires. The resultant questionnaire form subsequently was piloted with a sample of teachers and parents different from those included in the study.

The observation checklist consisted of the same twenty-four categories used on the teacher and parent questionnaires. It also included columns where the observer could record for activity occurrence (a) the frequency, (b) the duration (in minutes and seconds) and (c) comments. It, too, was piloted in a phase prior to the primary study. Table 1 provides a partial display of the checklist.

Insert Table 1 about here

The questionnaires circulated to teachers and parents listed the twenty-four categories (as revealed in the pilot phase of this study) that usually engage teachers in their thirty minute planning time. The instructions on the questionnaire included the following:

Listed below are categories of activities that elementary teachers usually engage in during their <u>scheduled instructional planning periods</u>.

A teacher's <u>scheduled instructional planning period</u> is defined as -the period of time during the day set aside for planning purposes. This period of time usually lasts between 30 and 60 minutes and is scheduled during the teacher's contract



school time. This scheduled instructional planning period is a time that the teacher is without the responsibility of direct instruction and interaction with students.

Please rank order the list (1,2,3, etc.) where 1 is the most frequent type of activity, 2 the second most frequent, 3 the third most frequent, etc. ... of what you believe an elementary teacher most frequently to least frequently engages in during this scheduled instructional time period.

Therefore, giving a category/component a 1 would mean they engage in this activity very frequently. Giving a category/component a 24 would mean they practically never engage in this activity.

You are to rank every category/component with an assigned number <u>without</u> assigning the same number to more than one category/component. In other words, when you have finished every category will have a number and you will have used every number from 1 to 24.

Suggestion: Read and look at ALL the categories first. Then separate into two distinct categories--those activities that you feel the teacher would engage in most of the time and those activities that you feel the teacher would hardly ever engage in. Work your way numbering in the "most" group from 1-12 and then in the "least" group from 24-13. This way you're covering the most and the least activities and then working your way to the middle.

Procedures

We wished to determine (a) how teachers <u>believe</u> they use this particular form of planning time, (b) how teachers <u>actually</u> use that time, (c) parent <u>perceptions</u> of how that time is used, and (d) the relationships between teacher belief, teacher use, and parent perception. To acquire data on these issues, we employed interviews of teachers, the shadowing of teachers during their planning time, and the distribution of questionnaires to parents and teachers.

There were two phases to the study procedures: that in which we collected data on and from teachers and that in which we circulated questionnaires to teachers and parents.

During the six months of the study, each of the thirty teachers was interviewed once. At each interview, written notes were made of teacher responses to questions. The interviews also were tape-recorded. Subsequent transcription, coding, and analysis (including analysis using NVivo software) produced teacher views on when they plan, how they plan, with whom they plan, the factors affecting their planning time, and the actual tasks which engage them during this thirty minute planning time.

After the interviews were completed, each teacher was observed during their thirty minute planning time on four different occasions. We used the observation checklist described above for recording teacher activity--frequency and duration.

We circulated the questionnaires to the thirty teachers and parents. As noted above, we asked the respondents to rank the twenty-four activities in terms of frequency of occurrence.



```

Subsequently, we determined average rankings for each category on the questionnaire and on the observation sheets for (a) the teacher group and (b) the parent group. We ran Spearman's rho correlations for the average rankings awarded by teachers with the average rankings awarded by parents for (a) the questionnaires, (b) the frequency of teacher engagement (from the observation of teachers), and (c) the duration of teacher engagement (also from the observation of teachers).

The use of average rankings hides the variability in rankings awarded by either group on the questionnaire. We addressed variability by comparing the mean rank on each of the twenty-four items for the two groups (teachers and parents). We reported the percent of each sample awarding a rank deviating from the mean ranking by two or more ranks. We then identified the questionnaire items where those percentages differed by five or more percentage points.

#### Results

From the data collection, we have (a) the tasks engaged in by elementary teachers as reported in the interviews; (b) the mean ranks awarded by teachers and parents for the twenty-four items on the questionnaire; (c) the <u>frequencies</u> of tasks engaged in by teachers, as tallied during the observations; and (d) the <u>total time</u> of task engagement, as recorded during the observations. Initially, the category "Other" was used as a category for the tallies (c) and (d). After that initial analysis of the observation data, "Other" was subdivided into ten additional categories. They were: waiting; personal calls or personal errands; late departure from the classroom; preparing assignments for students to take home; dealing with a cancelled fieldtrip; fixing equipment; attending an assembly; relaxing; exiting for a fire drill; and engaging in casual conversation. These activities were not observed in the shadowings of the pilot phase of the study. Therefore, we did not include them on the teacher and parent questionnaires.

In the interviews, teachers reported the use of this planning time as indicated in Table 2. The tasks reported most frequently were (1) traveling to destinations in the building; (2) checking messages; (3) taking bathroom breaks; (4) photocopying; and (5) preparation of materials.

#### Insert Table 2 about here.

The observations of how teachers actually used this thirty-minute planning time were summarized according to the <u>frequency</u> of the observed tasks (Table 3) and the <u>total time</u> of the task engagement (Table 4). (Entries in both tables are for totals of the 60 hours of observations.) In terms of <u>frequency</u>, the most frequently observed tasks were (1) traveling; (2) interactions with other teachers; (3) checking messages; and (4) interacting with staff and specialists. In terms of <u>total time</u>, the tasks engaging teachers for the longest time periods were (1) traveling; (2) grading papers; (3) preparing materials; and (4) interacting with parents.

Insert Table 3 about here.

#### Insert Table 4 about here.

For the twenty-four item questionnaire, the Spearman rho correlation of the mean rankings of teachers with those of parents was .616 (p = .01). When <u>questionnaire</u>



rankings were compared with the observed frequency of tasks, using the original twenty-four categories, the correlations were .448 (p = .05) and -.052 (not significant) for teachers and parents, respectively. Correlations of questionnaire rankings with total time of task rankings (again, using the original twenty-four categories) were .263 and .001, respectively, for teachers and parents. Neither was significantly different from zero.

#### Insert Table 5 about here.

We also examined the variability in the rankings of the twenty-four questionnaire categories assigned by teachers and parents (Table 5). For example, of the twenty-four items, item 2, "professional development," had a mean rank of 21 from teachers and 16.66 from parents. Thirteen percent of teachers assigned to this category a rank deviating from 21 by two or more ranks while 73 percent of the parents assigned a rank deviating from 16.66 by two or more ranks. Thus, parents varied more in the ranks they assigned "professional development" than did teachers. When we use a criterion of a difference of five or more percentage points, the percentage of parents deviating from their mean rank exceeded the percentage of teachers so deviating from their mean on eleven of the twenty-four items (items 1,2,7,9,11,14,15,16,19,20, and 22).

#### Discussion

This study is revealing about this thirty-minute planning time and the methods that were used to gather information about its use. It also documents how this particular time component of the teacher's work environment is used. It sheds light on how teachers' perception of that use correlates with their actual use of this form of planning time and how the use and teacher perception differ relative to the perceptions of a sample of parents.

- 1. A very small proportion of this time is actually devoted to the tasks that enhance the form of teacher delivery of instruction. This prompts three cautions. First, this form of planning time, while useful for managing many of the tasks related to teaching, likely is not significant in contributing directly to changes in instruction. Second, knowledge of teacher use of this time does indicate the importance of examining how teachers use other forms of planning time to impact their instruction, including implementing aspects of school reform and professional accountability. Finally, calling it "planning time" may contribute to misunderstandings about the time available to teachers for instructional planning. However, the fact that this time is not spent literally in "planning" should not diminish the importance of this time to teachers in managing the day-to-day tasks that confront them. This time is obviously important in supervising the movement of pupils, grading papers, preparing materials, and in interacting with parents and other staff members--a few among the many administrative tasks that daily confront teachers.
- 2. Comparison of questionnaire results revealed a moderate correlation (rho = .616) between teacher and parent ranking of planning time uses. However, the correlation of teacher questionnaire rankings with the actual observed <u>frequency</u> of task performance was a significant .448 while that for parents with task <u>frequency</u> was -.052. Further, questionnaire correlations with the total <u>time</u> spent on tasks were .263 and .001 (and not significantly different from zero) for teachers and parents, respectively. These



differences, when coupled with the variability in parent rankings, suggest a lack of parent understanding of the planning time available to teachers and the manner in which it is actually used. Justifying or acquiring planning time for teachers should be accompanied by the education of parents (and others) regarding the limitations of what is now available to teachers.

3. After completing the questionnaires, teachers remarked, "I wish you had done the questionnaire before the interview! I left out a lot!" Those remarks coupled with the differences for <u>frequency</u> and <u>total time</u>, point out the importance of using multiple forms of information gathering.

In terms of aspects of the theory about the time component of a teacher's environment, we found quantitative evidence that teachers do, as Hargreaves (1990) claims from interview data, use this "preparation time" in discretionary and flexible ways. Our study also adds to the quantitative confirmation of Campbell's (1985) distinction between preparation time and personal time. Campbell places "planning" in the personal category and the tasks we observed in the preparation category.

We obtained these findings on a limited sample of teachers and parents in a single, large, affluent suburban school district. We examined only a particular form of "planning time." Without question, similar work should be done in other settings and on other forms of planning time. Still, we firmly believe that this study reveals how little planning time is available to teachers. It substantiates the point of Louis and Smith (1990) that it is impossible to change learning conditions for students if we do not change working conditions for teachers.



#### References

Adelman, N. (1998). <u>Trying to beat the clock: Uses of teacher professional</u> development time in three countries. Washington, D.C.: U.S. Department of Education.

Bruno, J.E. (1997). <u>It's about time: Leading school reform in an era of time scarcity</u>. California: Corwin Press.

Campbell, R.J. (1985). <u>Developing the primary curriculum.</u> Eastbourne, UK: Cassells.

Day, C. (1997). Teachers in the twenty-first century: Time to renew the vision. In A. Hargreaves (Ed.), <u>Beyond education reform: Bringing teachers back in.</u> Philadelphia: Open University Press.

Feldman, A. (1994, June). <u>Long and serious conversations with teachers as research</u>. Paper presented at the Sixth Annual Conference on Ethnographic and Qualitative Research in Education, Amherst. MA.

Firestone, W. & Rosenblum, S. (1988). The alienation and commitment of students and teachers: A conceptual framework. <u>Educational Evaluation and Policy Quarterly</u>, 10,285-300.

Fullan, M.G. & Miles, M. (1992). Getting reform right: What works and what doesn't work. Phi Delta Kappan, 73, 744-753.

Hannaway, J. & Carnoy, M. (1993). <u>Decentralization and school improvement:</u> Can we fulfill the promise. San Francisco: Jossey-Bass.

Hargreaves, A. (1990). Teachers' work and the politics of time and space. Qualitative Studies in Education, 3(4), 303-320.

Johansen, J.J. (1992). Some characteristics associated with effectiveness of elementary school principals as demonstrated by role perceptions and the utilization of time. <u>Dissertation Abstracts International</u>, 44(7-A).

Liston, D. & Zeichner, K. (1991). <u>Culture and teaching.</u> Mahwah, NJ: Lawrence Erlbaum Associates.

Louis, K.S. & Smith, B. (1990). <u>Teachers work: Current issues and prospects for reform.</u> In P. Reyes (Ed.), <u>Productivity and performance in educational organizations.</u>
Newbury Park, CA: Sage.

McLaughlin, M. W. & Oberman, I. (1996). <u>Teaching learning: New policies, new practices</u>. New York: Teachers College Press.

Nelson, I. (1995). Time management for teachers. London: Kogan Page.

O'Loughlin, M. (1989, June). <u>The influence of teachers' beliefs about knowledge, teaching, and learning on their pedagogy: A constructivist reconceptualization and research agenda for teacher education.</u> Paper presented at the Annual Symposium of the Jean Piaget Society, Philadelphia, PA.

Sarason, S. (1990). <u>The predictable failure of educational reform.</u> San Francisco: Jossey-Bass.

Tobin, K. & McRobbie, C. (1996). Cultural myths as constraints to the enacted science curriculum. Science Education, 80 (2), 223-241.



. .

#### **Author Notes**

Kelly A. Decker conducted this study for her Ph.D. dissertation at the Graduate School of Education, George Mason University, Fairfax, VA. Currently, she is an Elementary Science Curriculum Specialist for the Fairfax County, VA Public Schools. She specializes in the application of effective teaching practices, particularly to the teaching of science.

Herbert W. Ware, a public school administrator for over 25 years, currently is a Lecturer in Educational Research and Statistics, the Graduate School of Education, George Mason University, Fairfax, VA. He specializes in the application of assessment and evaluation at the school level.

Correspondence concerning this paper should be addressed to Kelly A. Decker, Fairfax County Public Schools, Lacey Instructional Center, 3705 Crest Drive, Annandale, VA 22003.



Table 1

Partial Teacher Observation Checklist

| Component/Task                                                                                                                                                        | Frequency | Total | <b>Duration</b> (Unit: Min/S∞) | Total | Comments |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------|--------------------------------|-------|----------|
| Basic Needs                                                                                                                                                           |           |       |                                |       |          |
| (A fundamental requirement for survival. These needs include: bathroom breaks, eating, and drinking)                                                                  |           |       |                                |       |          |
| Professional Development (Attending seminars, workshops, conferences and classes that enhance teacher knowledge and skills)                                           |           |       | ·                              |       |          |
| Administrative Duties (Filling out paperwork required by school or district, engaging in committee work - e.g., SCA officer, bus duty, hall duty, Lead Teacher, etc.) |           |       |                                |       |          |
| Designing the Classroom (Altering the physical layout of the classroom - e.g., moving desks, organizing books, etc.)                                                  |           |       |                                |       |          |



Table 2.

Reported Tasks Engaged in by Elementary Teachers During a 30-Minute

Instructional Planning Period

| Number of | Task                                |
|-----------|-------------------------------------|
| Teachers  |                                     |
| Responded |                                     |
| 29        | Travelingwalking to various         |
|           | destinations in the school building |
| 25        | Checking messages                   |
| 22        | Basic needsbathroom break           |
| 20        | Photocopy                           |
| 19        | Preparation of materials            |
| 17        | Teacher interactions with parents   |
|           | (phone calls, notes, and face-to-   |
|           | face meetings)                      |
| 12        | Teacher interactions with staff and |
|           | specialists                         |
| 9         | Teacher interactions with other     |
|           | teachers                            |
| 6         | Teacher interactions with           |
|           | administrators                      |
| 5         | Grading papers                      |
| 4         | Administrative duties               |
| 4         | Looking over lesson plans for the   |
|           | day and/or next lesson (individual  |
|           | planning)                           |
| 3         | Creating a worksheet                |
| 3         | Otherpersonal phone calls and       |
|           | relaxing                            |
| 1         | Organizingdesigning the             |
|           | classroom                           |
| 1         | Student record keeping              |
| 1         | Teacher interactions with students  |

Note: There were a possible 30 teachers for each item.



Table 3.

<u>The Frequency of Observed Tasks During Elementary Teachers' 30-Minute Instructional Planning Periods</u>

| Frequency of<br>Task Observed | Task                                       |  |
|-------------------------------|--------------------------------------------|--|
| 403                           | Traveling (walking to various              |  |
|                               | destinations in the school building)       |  |
| 102                           | Teacher interactions with other teachers   |  |
| 95                            | Checking messages                          |  |
| 86                            | Teacher interactions with staff and        |  |
|                               | specialists                                |  |
| 52                            | Basic needs - bathroom break               |  |
| 51                            | Preparation of materials                   |  |
| 49                            | Teacher interactions with parents          |  |
| 33                            | Photocopying                               |  |
| 31                            | Waiting                                    |  |
| 29                            | Student record keeping                     |  |
| 26                            | Teacher interactions with students         |  |
| 24                            | Administrative duties                      |  |
| 22                            | Grading papers                             |  |
| 21                            | Designing the classroom                    |  |
| 18                            | Personal calls/Personal errands            |  |
| 16                            | Late leaving classroom                     |  |
| 14                            | Teacher interactions with community        |  |
|                               | members                                    |  |
| 12                            | Preparing assignments for students to take |  |
|                               | home                                       |  |
| 11                            | Bulletin board displays                    |  |
| 11                            | Using print resources                      |  |
| 11                            | Individual planning                        |  |
| 9                             | Teacher interactions with administrators   |  |
| 8                             | Team planning                              |  |
| 4                             | Creating worksheets                        |  |
| 4                             | Professional development                   |  |
| 3                             | Field trip/cancelled                       |  |
| 2                             | Fixing equipment                           |  |
| 2                             | Attending assemblies                       |  |
| 2                             | Scheduling programs                        |  |
| 2                             | Relaxing                                   |  |
| 1                             | Fire drill                                 |  |
| 1                             | Creating learning centers                  |  |
| 1                             | Casual conversations                       |  |



Table 4.

The Total Time of Tasks Observed During Elementary Teachers' 30-Minute Instructional Planning Periods

| Time Spent in            | Task                                       |
|--------------------------|--------------------------------------------|
| Minutes<br>(Out of 3,600 |                                            |
| (Out of 3,000 min.)      |                                            |
| 531                      | Traveling (walking to various destinations |
|                          | in the school building)                    |
| 257                      | Grading papers                             |
| 251                      | Preparation of materials                   |
| 239                      | Teacher interactions with parents          |
| 217                      | Teacher interactions with other teachers   |
| 199                      | Student record keeping                     |
| 197                      | Teacher interactions with staff and        |
| 1                        | specialists                                |
| 168                      | Checking messages                          |
| 150                      | Professional development                   |
| 145                      | Photocopying                               |
| 108                      | Administrative duties                      |
| 107                      | Teacher interactions with students         |
| 97                       | Team planning                              |
| 90                       | Field trip/cancelled                       |
| 84                       | Preparing assignments for students to take |
|                          | home                                       |
| 81 (80:50)               | Basic needs – bathroom break               |
| 81 (80:48)               | Designing the classroom                    |
| 72                       | Personal calls/Personal errands            |
| 71                       | Teacher interactions with community        |
|                          | members                                    |
| 69                       | Individual planning                        |
| 65                       | Waiting                                    |
| 63                       | Bulletin board displays                    |
| 56                       | Using print resources                      |
| 52                       | Teacher interactions with administrators   |
| · 49                     | Late leaving classroom                     |
| 28                       | Creating worksheets                        |
| 24                       | Attending assemblies                       |
| 17                       | Scheduling programs                        |
| 13                       | Fixing equipment                           |
| 11                       | Creating learning centers                  |
| 6                        | Fire drill                                 |
| 1                        | Relaxing                                   |
| 1                        | Casual conversations                       |



Table 5.

Mean Rank of Teachers' and Parents' Perceptions of the Tasks Engaged in by

Elementary Teachers During a 30-Minute Planning Period and the Percent of Variability

of the Ranks in Each Group

|                                  | Mean Rank |         | Percent Deviating by Two or<br>More Ranks |         |
|----------------------------------|-----------|---------|-------------------------------------------|---------|
| Item                             | Teachers  | Parents | Teachers                                  | Parents |
| Basic Needs                      | 4.16      | 10.3    | 80                                        | 90      |
| 2. Prof. Development             | 21        | 16.66   | 13                                        | 73      |
| 3. Admin. Duties                 | 10.2      | 12.13   | 77                                        | 77      |
| 4. Design Class                  | 16.1      | 14.63   | 80                                        | 77      |
| 5. Bulletin Board                | 15.56     | 13.36   | 83                                        | 63      |
| 6. Create Centers                | 17.33     | 12.9    | 73                                        | 77      |
| 7. Prep. Materials               | 4.53      | 7.56    | 53                                        | 60      |
| 8. Print Resources               | 10.2      | 10.73   | 80                                        | 83      |
| 9. Photocopy                     | 4.46      | 10.7    | 57                                        | 83      |
| 10. Individual Plan              | 10.4      | 5.63    | 90                                        | 70      |
| 11. Team Planning                | 13.23     | 8.3     | 73                                        | 90      |
| 12. Grade Papers                 | 11.9      | 6.1     | 77                                        | 80      |
| 13. Student Records              | · 11.76   | 8.6     | 67                                        | 67      |
| 14. Int. w/ Parents              | 8.66      | 12.63   | 63                                        | 70      |
| 15. Int. w/ Students             | 18.06     | 14.5    | 60                                        | 70      |
| 16. Int. w/ Admin.               | 12.86     | 12.5    | 60                                        | 83      |
| 17. Int. w/ Staff                | 12.43     | 12.86   | 80                                        | 70      |
| 18. Int. w/ Teachers             | 12.2      | 12.83   | 83                                        | 63      |
| 19. Int. w/ Community            | 21.2      | 20.56   | 23                                        | 57      |
| 20. Schedule Program             | 17.1      | 14.8    | 53                                        | 87      |
| 21. Worksheets                   | 10.43     | 8.73    | 64                                        | 64      |
| 22. Check Messages               | 7.2       | 10.8    | 67                                        | 80      |
| 23. Travel                       | 7.06      | 19.4    | 67                                        | 64      |
| 24. Other                        | 22.56     | 22.93   | 13                                        | 7       |
| Average Note Highlighted numbers |           |         | 64                                        | 1       |

Note. Highlighted numbers display the group with the lower percent of respondents deviating from the mean rank by two or more ranks for that specific task item. A percent is highlighted if it differs from the other by more than five percentage points.





#### U.S. Department of Education

Office of Educational Research and Improvement (OERI)

National Library of Éducation (NLE) Educational Resources Information Center (ERIC)



# **Reproduction Release**

(Specific Document)

# I. DOCUMENT IDENTIFICATION:

| Title:<br>Elementary Teacher Planning Time: Teacher                       | Use; Parent Perception |
|---------------------------------------------------------------------------|------------------------|
| Author(s): Dr. Kelly A. Decker and Dr. Herb                               | Ware                   |
| Corporate Source: George Mason University / Fairfax County Public Schools | Publication Date:      |

#### II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, Resources in Education (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign in the indicated space following.



| PERMISSION TO REPRODUCE AND DISSEMBNATE THIS MATERIAL HAS BEEN GRANCED BY  TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)  Level 1  Check here for Level 1 recesse, permitting erproduction and dissemination in microfiche and paper copy.  Check here for Level 1 recesse, permitting erproduction and dissemination in microfiche and paper copy.  Documents will be processed as indicated above. Reproduction from the ERIC microfiche, or electronic made for part requires permission from the copyright holder. Exception is made for one-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to isserted inquiries.  Printed Name-Position/Title:  Kelly A. Decker   Elemenhary Science Curriculus guarantee of the State of the County of the State of the County of the Cou | The gammin sticker shows below will be offered to                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Thu grounds sticked shows below will be offered to all                                                                                                                                                                                                                                                                                                                                                                                                                                              | The gammle sticker shown below will be offixed                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DISSEMINATE THIS MATERIAL IN PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANCED BY  TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)  Level 1  Level 1  Level 2  Check here for Level 2A Check here for Level 2A college, permitting reproduction, and dissemination in microfiche or other ERIC archival media (e.g. electronic) and paper copy.  Documents will be processed as indicated above. Reproduction for the ERIC microfice, or electronic media by persons other man ERIC employees and its system contractors requires permission from the Copyright holder. Exception is made for one-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to isserted inquiries.  Printed NamePosition Tide:  Kelly A. Decker   Elemenhary Science Curriculus Special St.    Fax:  To 3 - 648 - 882    To THE EDUCATIONAL RESOURCES INFORMATION (FROM NON-ERIC SOURCE):  Printed NamePosition of tides and in electronic media in microfiche or other production and dissemination in microfiche and in electronic media for REIC microfice, or electronic media by persons other man ERIC employees and its system contractors requires permission from the ERIC microfice, or electronic media by persons to screek inquiries.  Printed NamePosition Tide:  Kelly A. Decker   Elemenhary Science Curriculus Special St.    Fax:  To 3 - 648 - 882    Date:  3/12/0 2  III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):  permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another uree, please provide the following information regarding the availability of the document (ERIC will not anonunce a current unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC election criteria are significantly more stringent for documents that cannot be made available through EDRS.)                                                                                                      | The sample sticker shown below will be affixed to all Level 1 documents                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | The sample sticker shown below will be affixed to all Level 2A documents                                                                                                                                                                                                                                                                                                                                                                                                                            | The sample sticker shown below will be affixed<br>Level 2B documents                                                                                                                                                                                                                                                                                            |
| Check here for Level 1 Check here for Level 2A Level 2B  Check here for Level 1 Check here for Level 2A release, permitting reproduction and dissemination in microfiche or other ERC archival media (e.g. electronic) and paper copy.  Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERC archival collection subscribers only  Documents will be processed as indicated provided reproduction quality permits.  If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.  Thereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and isseminate this document as indicated above. Reproduction from the ERIC microfiche, or electronic media by persons other name ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for on-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to iscrete inquiries.  Ignature:  Helly A. Decker Elementary Science Curriculus Specialist Fair Annahalle, J.A. 22003  Printed Name/Position/Tule:  Kelly A. Decker Elementary Science Curriculus Specialist Fair Annahalle, J.A. 22003  Printed Name/Position/Tule:  Kelly Accker & faps. cdu  Tolephone:  Tol. – 846 – 8825  E-mail Address:  E-mail Address:  E-mail Address:  Tol. – 698 – 8821  E-mail Address:  Tolephone:  T | DISSEMINATE THIS MATERIAL HAS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | DISSEMINATE THIS MATERIAL IN<br>MICROFICHE, AND IN ELECTRONIC MEDIA<br>FOR ERIC COLLECTION SUBSCRIBERS ONLY,                                                                                                                                                                                                                                                                                                                                                                                        | PERMISSION TO REPRODUCE AND<br>DISSEMINATE THIS MATERIAL IN<br>MICROFICHE ONLY HAS BEEN GRANTE                                                                                                                                                                                                                                                                  |
| Check here for Level 1 Check here for Level 2A Level 2B  Check here for Level 1 Check here for Level 2A release, permitting reproduction and dissemination in microfiche or other ERC archival media (e.g. electronic) and paper copy.  Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERC archival collection subscribers only  Documents will be processed as indicated provided reproduction quality permits.  If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.  Thereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and isseminate this document as indicated above. Reproduction from the ERIC microfiche, or electronic media by persons other name ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for on-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to iscrete inquiries.  Ignature:  Helly A. Decker Elementary Science Curriculus Specialist Fair Annahalle, J.A. 22003  Printed Name/Position/Tule:  Kelly A. Decker Elementary Science Curriculus Specialist Fair Annahalle, J.A. 22003  Printed Name/Position/Tule:  Kelly Accker & faps. cdu  Tolephone:  Tol. – 846 – 8825  E-mail Address:  E-mail Address:  E-mail Address:  Tol. – 698 – 8821  E-mail Address:  Tolephone:  T | A AND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | P2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | St.                                                                                                                                                                                                                                                                                                                                                             |
| Check here for Level 1 Check here for Level 2A Level 2B  Check here for Level 1 Check here for Level 2A release, permitting reproduction and dissemination in microfiche or other ERC archival media (e.g. electronic) and paper copy.  Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERC archival collection subscribers only  Documents will be processed as indicated provided reproduction quality permits.  If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.  Thereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and isseminate this document as indicated above. Reproduction from the ERIC microfiche, or electronic media by persons other name ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for on-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to iscrete inquiries.  Ignature:  Helly A. Decker Elementary Science Curriculus Specialist Fair Annahalle, J.A. 22003  Printed Name/Position/Tule:  Kelly A. Decker Elementary Science Curriculus Specialist Fair Annahalle, J.A. 22003  Printed Name/Position/Tule:  Kelly Accker & faps. cdu  Tolephone:  Tol. – 846 – 8825  E-mail Address:  E-mail Address:  E-mail Address:  Tol. – 698 – 8821  E-mail Address:  Tolephone:  T | <del></del>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 5                                                                                                                                                                                                                                                                                                                                                               |
| Check here for Level 1 rease, permitting reproduction and dissemination in microfiche or other ERK archival media (e.g. electronic) and paper copy.  Documents will be processed as indicated provided reproduction quality permits.  If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.  hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and isseminate this document as indicated above. Reproduction from the ERIC microfiche, or electronic media by persons other tan ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for one-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to iscrete inquiries.  Printed Name/Position/Title:  Kelly A. Decker / Elementary Science Curriculus Specialist (Caler 370.5 Crest Drive Annualist). VA. 22003  II. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):  permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another urce, please provide the following information regarding the availability of the document. (ERIC will not announce a curricular are significantly more stringent for documents that cannot be made available through EDRS.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                 |
| reproduction and dissemination in microfiche or other ERC archival media (e.g. electronic) and paper copy.  Documents will be processed as indicated provided reproduction quality permits.  If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.  hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and isseminate this document as indicated above. Reproduction from the ERIC microfiche, or electronic media by persons other nam ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for on-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to iscrete inquiries.  Ignature:    Printed Name/Position/Title:   Kelly A. Decker   Elementary Science Curriculus   Email Address:   Fair fax:   703 - 698 - 882.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Level 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Level 2A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Level 2B                                                                                                                                                                                                                                                                                                                                                        |
| reproduction and dissemination in microfiche or other ERC archival media (e.g. electronic) and paper copy.  Documents will be processed as indicated provided reproduction quality permits.  If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.  hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and isseminate this document as indicated above. Reproduction from the ERIC microfiche, or electronic media by persons other nam ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for on-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to iscrete inquiries.  Ignature:    Printed Name/Position/Title:   Kelly A. Decker   Elementary Science Curriculus   Email Address:   Fair fax:   703 - 698 - 882.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>†</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>†</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>†</b>                                                                                                                                                                                                                                                                                                                                                        |
| reproduction and dissemination in microfiche or other ERC archival media (e.g. electronic) and paper copy.  Documents will be processed as indicated provided reproduction quality permits.  If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.  hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and isseminate this document as indicated above. Reproduction from the ERIC microfiche, or electronic media by persons other nam ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for on-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to iscrete inquiries.  Ignature:    Printed Name/Position/Title:   Kelly A. Decker   Elementary Science Curriculus   Email Address:   Fair fax:   703 - 698 - 882.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                 |
| If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.  Thereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and isseminate this document as indicated above. Reproduction from the ERIC microfiche, or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for on-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to iscrete inquiries.  Ignature: Kelly A. Decker Elementary Science Curriculus Kelly A. Decker Fax:  Telephone: Fax:  703 - 698 - 8821  Telephone: Fax:  703 - 698 - 8821  Total Resource of the document from another urce, please provide the following information regarding the availability of the document from another urce, please provide the following information regarding the availability of the document. (ERIC will not announce a current unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC dection criteria are significantly more stringent for documents that cannot be made available through EDRS.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | reproduction and dissemination in microfiche or other ERIC archival media (e.g. electronic) and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | reproduction and dissemination in microfiche and in electronic media for ERIC archival collection                                                                                                                                                                                                                                                                                                                                                                                                   | Check here for Level 2B release, permittin reproduction and dissemination in microfiche                                                                                                                                                                                                                                                                         |
| HI. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):  permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another curce, please provide the following information regarding the availability of the document. (ERIC will not announce a cument unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC election criteria are significantly more stringent for documents that cannot be made available through EDRS.)  ublisher/Distributor:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | hereby grant to the Educational Resourc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ces Information Center (ERIC) nonexclusive pove. Reproduction from the ERIC microfiche                                                                                                                                                                                                                                                                                                                                                                                                              | permission to reproduce and<br>s, or electronic media by persons other                                                                                                                                                                                                                                                                                          |
| HI. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):  permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another curce, please provide the following information regarding the availability of the document. (ERIC will not announce a cument unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC election criteria are significantly more stringent for documents that cannot be made available through EDRS.)  ublisher/Distributor:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | hereby grant to the Educational Resource isseminate this document as indicated about the RIC employees and its system contron-profit reproduction by libraries and discrete inquiries.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | res Information Center (ERIC) nonexclusive pove. Reproduction from the ERIC microficher actors requires permission from the copyrigh other service agencies to satisfy information  Printed Name/Position/Title:  Kelly A. Decker  E                                                                                                                                                                                                                                                                | permission to reproduce and so, or electronic media by persons other at holder. Exception is made for needs of educators in response to specialist                                                                                                                                                                                                              |
| II. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):  permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another urce, please provide the following information regarding the availability of the document. (ERIC will not announce a cument unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC lection criteria are significantly more stringent for documents that cannot be made available through EDRS.)  ublisher/Distributor:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | hereby grant to the Educational Resource isseminate this document as indicated about an ERIC employees and its system contron-profit reproduction by libraries and discrete inquiries.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | res Information Center (ERIC) nonexclusive pove. Reproduction from the ERIC microficher actors requires permission from the copyrigh other service agencies to satisfy information  Printed Name/Position/Title:  Kelly A. Decker  E                                                                                                                                                                                                                                                                | permission to reproduce and so, or electronic media by persons other at holder. Exception is made for needs of educators in response to specialist  Fax:  703 - 698 - 8821                                                                                                                                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | hereby grant to the Educational Resource disseminate this document as indicated abth han ERIC employees and its system controlon-profit reproduction by libraries and offiscrete inquiries.  ignature:  Diganization/Address:  Fairfax County Public Schools Lacey Instructional Center 3705 Crest Drive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | res Information Center (ERIC) nonexclusive pove. Reproduction from the ERIC microfiches actors requires permission from the copyrigh other service agencies to satisfy information  Printed Name/Position/Title:  Kelly A. Decker  Telephone:  703 - 846 -8625  E-mail Address:                                                                                                                                                                                                                     | permission to reproduce and so, or electronic media by persons other at holder. Exception is made for meeds of educators in response to    ementary Science Curriculus Specialist     Fax: 703 - 698 - 8821     Date: 1                                                                                                                                         |
| .ddress:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | hereby grant to the Educational Resource disseminate this document as indicated able than ERIC employees and its system control on-profit reproduction by libraries and coliscrete inquiries.  Ingular discrete inquiries.  Ingular discrete inquiries:  Fairfax County Public Schools  Lacey Instructional Center  3705 Crest Drive  Annandale VA. 22003  II. DOCUMENT AVAILABILIT  permission to reproduce is not granted to curce, please provide the following information ocument unless it is publicly available, and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | res Information Center (ERIC) nonexclusive prove. Reproduction from the ERIC microficher actors requires permission from the copyright other service agencies to satisfy information  Printed Name/Position/Title:  Kelly A. Decker  Telephone:  703 - 846 -8625  E-mail Address:  Kelly. decker & feps. cd.  TY INFORMATION (FROM NON DERIC, or, if you wish ERIC to cite the availantion regarding the availability of the document of a dependable source can be specified. Continuous contents. | permission to reproduce and so, or electronic media by persons other at holder. Exception is made for needs of educators in response to seementary Science Curriculus Specialist  Fax:  703 - 698 - 8821  Date:  3/12/02  -ERIC SOURCE):  ability of the document from another ent. (ERIC will not announce a ributors should also be aware that ERIC           |
| .aaress:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Thereby grant to the Educational Resource disseminate this document as indicated able than ERIC employees and its system control for profit reproduction by libraries and confiscrete inquiries.  In a signature:  Fairfax (ounly Public Schools Lacey Instructional Center 3705 Crest Drive Annahale VA. 22003  II. DOCUMENT AVAILABILITY permission to reproduce is not granted to nurce, please provide the following information ocument unless it is publicly available, and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | res Information Center (ERIC) nonexclusive prove. Reproduction from the ERIC microficher actors requires permission from the copyright other service agencies to satisfy information  Printed Name/Position/Title:  Kelly A. Decker  Telephone:  703 - 846 -8625  E-mail Address:  Kelly. decker & feps. cd.  TY INFORMATION (FROM NON DERIC, or, if you wish ERIC to cite the availantion regarding the availability of the document of a dependable source can be specified. Continuous contents. | permission to reproduce and so, or electronic media by persons other at holder. Exception is made for needs of educators in response to seementary Science Curriculus Specialist  Fax:  703 - 698 - 8821  Date:  3/12/02  -ERIC SOURCE):  ability of the document from another ent. (ERIC will not announce a ributors should also be aware that ERIC           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | hereby grant to the Educational Resource disseminate this document as indicated able han ERIC employees and its system control for profit reproduction by libraries and discrete inquiries.  Ignature: Lelly A. Lelle Diganization/Address:  Fairfax (ounly Public Schools Lacey Instructional Center 3705 Crest Drive Annan dale VA. 2.2003  II. DOCUMENT AVAILABILITY permission to reproduce is not granted to curce, please provide the following information current unless it is publicly available, and election criteria are significantly more string publisher/Distributor:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | res Information Center (ERIC) nonexclusive prove. Reproduction from the ERIC microficher actors requires permission from the copyright other service agencies to satisfy information  Printed Name/Position/Title:  Kelly A. Decker  Telephone:  703 - 846 -8625  E-mail Address:  Kelly. decker & feps. cd.  TY INFORMATION (FROM NON DERIC, or, if you wish ERIC to cite the availantion regarding the availability of the document of a dependable source can be specified. Continuous contents. | permission to reproduce and so, or electronic media by persons other at holder. Exception is made for needs of educators in response to seementary Science Curriculus Specialist  Fax:  703 - 698 - 8821  Date:  3/12/02  -ERIC SOURCE):  ability of the document from another ent. (ERIC will not announce a ributors should also be aware that ERIC           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | hereby grant to the Educational Resource disseminate this document as indicated about the Educational Resource disseminate this document as indicated about the Education by libraries and construction and Center 370 S Crest Drive Annandale VA - 2.2003  II. DOCUMENT AVAILABILITY permission to reproduce is not granted to burce, please provide the following information comment unless it is publicly available, and election criteria are significantly more string the string of the significantly more string discourse the significant discourse the significant discourse the significant discourse the significant discourse discourse the significant discourse d | res Information Center (ERIC) nonexclusive prove. Reproduction from the ERIC microficher actors requires permission from the copyright other service agencies to satisfy information  Printed Name/Position/Title:  Kelly A. Decker  Telephone:  703 - 846 -8625  E-mail Address:  Kelly. decker & feps. cd.  TY INFORMATION (FROM NON DERIC, or, if you wish ERIC to cite the availantion regarding the availability of the document of a dependable source can be specified. Continuous contents. | permission to reproduce and a control of the decironic media by persons other at holder. Exception is made for needs of educators in response to seementary Science Curriculus Specialist  Fax:  703 - 698 - 8821  Date:  3/12/02  -ERIC SOURCE):  ability of the document from another cent. (ERIC will not announce a ributors should also be aware that ERIC |

Price:

# IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

| If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                                                                                                                                                             |
| Address:                                                                                                                                                          |
| V. WHERE TO SEND THIS FORM:                                                                                                                                       |
| Send this form to the following ERIC Clearinghouse:                                                                                                               |
| However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the documer being contributed) to:            |
| ERIC Processing and Reference Facility 4483-A Forbes Boulevard Lanham, Maryland 20706 Telephone: 301-552-4200 Toll Free: 800-799-3742 e-mail: ericfac@inet.ed.gov |
| WWW. http://oniofocility.oug                                                                                                                                      |

EFF-088 (Rev. 2/2001)

ERIC

Full Teast Provided by ERIC

3 of 3